**Math 20095 Sections (076-099) Spring 15 Algebra for Calculus – Stretch II Dec 10 2014**

Text: A custom edition Beecher, Penna, Bittinger (2012). *College Algebra 4th edition*, *Intermediate Algebra 12th Edition* chapters 4 & 5, *ebook* 00023 Sec 2.4, *ebook* 00024 Sec 1.1 & 1.2

Software: MyLabsPlus

Second Semester 45 days: MTR Schedule with notes. IA means Intermediate Algebra Text.

**Functions in General**

**Jan 12** 2.3 Composition of Functions HW 1-21 odd, 25, 27, 31, 39-51 odd

 **13** 2.4A Symmetry, Even and Odd Functions HW 1 – 47 odd

 **15** 2.4B Basic Graphs of Functions p 194, Quadratic, Nth Root, Power, Reciprocal, Transformations-Graphing, Visualize the graph p 205 1 – 9 all, HW 49-55odd,61,63,67,69,83,85,87,89,91,97,99,103

 **19** Martin Luther King

 **20** 2.4B Cont’d HW 49-55odd,61,63,67,69,83,85,87,89,91,97,99,103

 **22** 2.4C Non rigid Transformations (stretches and compressions)

 HW 59,65,67,71,73,75,77,79,81,99,101,103,105-125odd,129

 **26** 2.4C Cont’d, Be able to do 2.4 HW 1 –47 odd, 49-125 odd, 129; Visualize the graph p 205 1 – 9 all

 **27** Review

 **29** **Exam 1** - ***50 pts -*** Functions 2.3, 2.4

**Exponential and Logarithmic Functions**

**Feb 2** 5.1A One to One Functions, Graph Inverse Functions, Horizontal Line Test

 HW 5.1A 1 – 43 odd 67, 69, 71

 **3** 5.1B Finding the inverse function HW 45-87 odd omit 55,75

 **5** 5.1 B Cont’d HW 73- 87 odd, 89, 91

 **9** 5.2 Graph Exponential Functions HW 1 – 47 odd omit 31

 **10** 5.2 Compound Interest HW 51-63 odd

 **12** 5.3 Logarithmic Functions 7-67 odd

 **16** 5.3 Graphing Logs HW 79-85odd, Applications of Logs 97, 101, Visualize the graph p 425 1- 10 all

 **17** 5.4 Properties of Logs HW 1-75odd

 **19** 5.4 Cont’d Property of Logs HW 1-75odd

 **23** 5.5A Exponential Equations HW 1- 29 odd

 **24** 5.5B Logarithmic Equations HW 31-57 odd

 **26** 5.6A Applications: Growth & Decay, Compound Interest Continuously HW 1-17odd

**Mar 2** 5.6B Cont’d HW 19-21 odd, Newton’s Law of Cooling. Present Value 31, review 1 – 17 odd

 **3** Review

 **5** **Exam 2 -** ***100 pts -*** Exponential and Logarithmic Functions 5.1-5.6

**Rational Expressions**

 **9** 5.1 from IA Text Find Domain, Simplify, Multiply and Divide Rational Expressions HW 5-63odd

 **10** 5.2A from IA Text Finding LCM, Adding and Subtracting Rational Expressions

 with like denominator HW 1-41 odd

 **12** 5.2B from IA Text Adding /Subtracting with Unlike Denominator HW 43-71 odd

 **16** 5.4 from IA Text Complex Rational Expressions HW 3-27 odd

 **17** 5.5 from IA Text Solving Rational Equations 1 – 39 odd

 **19** 5.6 from IA Text Applications: Work, Motion and Proportion

 HW work: 1,3,5,9 Proportion: 11-21 odd, Motion: 27-33 odd

***Last Day to WD Sunday March 22***

***Spring Break Mar 23-29***

 **30** Review

 **31** **Exam 3 *- 100 pts -*** Rational Expressions from IA text: 5.1, 5.2, 5.4-5.6

**Rational Functions and Rational Inequalities**

**Apr 2** 4.5 Finding domains, vertical and horizontal asymptotes, graphing rational functions

 **6** 4.5 Cont’d HW 1-9odd, 13-25 odd, 33, 35, 39-51 odd, 55, 57, 61, 65, 67, 85

 **7** 4.6B Rational Inequalities HW 53-63 odd, 69

**Conic Sections**

 **9** 1.1 Distance Formula & Midpoint Formula and 7.1 Parabola

 1.1HW 41-51odd, 61-69 odd 7.1 HW 7-33 odd, 43

 **13** 7.1 Cont’d Parabola 1.1HW 41-51 odd , 61-69 odd 7.1 HW 7-33odd, 43

 **14** 7.2 Circle 1.1 HW 73-81 odd 7.2 HW 7 - 17 odd (Complete the Square)

 **16** 7.2 Ellipse 23-45 odd, 51, 54

 **20** 7.3 Hyperbola HW 1-33 odd, Try 39, 40

 **21**  7.3 Cont’d HW 1 -33 odd, Try 39, 40

 **23** Review

 **27 Exam 4 – *100 pts* -**  Rational Functions 4.5, 4.6B Conic Sections 7.1-7.3, 1.1

 **28** Review for Final Exam

 **30** Review for Final Exam

**May 5 Final Exam** (Block Exam 3:15-5:30pm)